DOCUMENT RESUME

ED 095 367 CE 001 931

AUTHOR Birk, Janice M.
TITLE Reducing Sex Bias--Factors Affecting the Client's View of the Use of Career Interest Inventories.
INSTITUTION Aries Corp., Minneapolis, Minn.
SPONS AGENCY National Inst. of Education (DHEW), Washington, D.C.
PUB DATE Mar 74
CONTRACT OEC-0-72-5240
NOTE 49p.; For related documents see CE 001 926-930 and CE 001 932-935, draft

EDRS PRICE MF-$0.75 HC-$1.85 PLUS POSTAGE
DESCRIPTORS Career Choice; Career Planning; Counseling; Counselors; Equal Opportunities (Jobs); Interest Research; Interest Scales; *Interest Tests; Occupational Choice; Occupational Guidance; Sex Differences; *Sex Discrimination; *Sex Stereotypes; Test Bias; *Vocational Counseling; *Vocational Interests
IDENTIFIERS Sex

ABSTRACT

Research related to the issues of sexual bias in the use of interest inventories is reviewed, particularly from the client's view of the career exploration process. Since counselors refer to manuals and interpretive materials to obtain norming information and guidelines for score interpretation, these sources are examined and found to contain both explicit suggestions and subtle implications which, if followed by the counselor, could have deleterious effects on their women clientele. Recommended changes for manuals and interpretive materials are aimed at maximizing the counselor's effective use of interest inventories on the client's behalf. It is a complex issue, since other factors interact with interest inventory results; corrective interventions suggested include: (1) alter prevocational experiences to maximize the range of interests and aspirations; (2) examine the development of interests, particularly women's vocational goals; (3) provide counselors with an awareness of sex roles and strategies to counter stereotypes, through workshops; and (4) revise interest measures. High priority is given to the immediate revision of inventory manuals. (Author/AJ)

DRAFT

REDUCING SEX BIAS - FACTORS AFFECTING THE CLIENT'S VIEW OF THE USE OF CAREER INTEREST INVENTORIES

Janice M. Birk, Ph.D.[1]

University of Maryland

Prepared for

National Institute of Education

Career Education Project

March, 1974

This paper was funded under a contract to the ARIES Corporation (#OE-C-72-5240) from the National Institute of Education of the U. S. Department of Health, Education, and Welfare. The views expressed do not necessarily reflect those of the ARIES Corporation, the National Institute of Education, or any agency of the U.S. government.

REDUCING SEX BIAS - FACTORS AFFECTING THE CLIENT'S VIEW OF THE USE OF CAREER INTEREST INVENTORIES

Job titles may differ, but a primary function of many counselors is to facilitate the career decision-making of clients. In a large university counseling center, for example, Crites (1969) reported that 23% of the clientele had vocational concerns and another 28% had vocational-educational problems. Similarly, according to Magoon (1973), university and college counseling centers participating in a comprehensive data retrieval system reported that during 1972-1973 the median percentage of clients seeking educational-vocational counseling in large institutions (more than 10,000 students) and small institutions (less than 10,000 students) was 40% and 30% respectively. For the Employment Service counselor, helping young adults to prepare for satisfying employment had been emphasized several years ago by Hedges (1964), along with her then "avant garde" injunction that counselors must respond to the special challenge of overcoming obstacles that limit women to "traditional" occupations.

The fact that employed women are more restricted than men to low-status and low-salary career is indisputable (U. S. Department of Labor, 1971); that men suffer their own kind of job discrimination is also clear. The etiology and maintenance of this condition is as complex as it is unacceptable. With the advent of Affirmative Action, however, the status quo is being challenged and the promise of change exists.

A current report of the U. S. Department of Labor (1973) projected the needs of the labor market through the 70's. Projections were made in order to help women make realistic plans for those careers that have employment needs and, therefore, advancement possibilities. To become competitive,

"women and girls should plan to train for non-traditional as well as traditional occupations (p.1)," since the usual "women's" occupations will not have sufficient openings for women seeking work.

The counselor, involved in career exploration with clients, fosters consideration of an array of career options. If the process, or any part of it, eliminates options on the basis of an irrelevant variable, such as, race, sex or marital status, then it is biased. A brief discussion of the relevancy of sex to the world of work is provided by Harmon (1973, p. 496).

Increasingly, counselors are enjoined to abandon sex role stereotyping and thus expand women's career options (Angrist, 1973; Eyde, 1970; Hall, 1973; and Pringle, 1971). Presumably few counselors of either sex describe themselves as chauvinistic or sexist (Pietrofessa & Schlossberg, 1971); therefore, it is feasible that most counselors would not recognize the possible bias in career counseling in terms of interactions, content and materials used. This is understandable, although not excusable, since many of the influences mitigating against nonstereotypic career choices are subtle and evasive. For example, a detailed examination of over 2000 illustrations in popular sources of career information (such as, the Occupational Outlook Handbook, the Encyclopedia of Careers, the SRA Occupational Briefs, and assorted brochures) revealed that (1) women and members of ethnic minorities are severely underrepresented, (2) Asian Americans are typically pictured in laboratories, (3) women are illustrated as smiling while men appear to be about the serious business of work, and (4) women are seldom pictured outdoors or involved in activity, but are frequently pictured as the career representative for service occupations (Birk, Cooper & Tanney, 1973). Although a content analysis of racial or sex role stereotyping in the textual matter of career information has not been done to date, such a

study seems needed, as well as likely to appear. Up until recently, however, researchers had not attended to issues of sexual or racial bias in counseling materials and processes.

In a discussion of the role of tests in career exploration, Prediger (1972) proposed that the tests should (1) stimulate, broaden and focus career exploration, (2) stimulate exploration of self in relation to careers, and (3) provide predictive information relative to different career choice options. Holland (undated), looking at vocational services in general, stated that an ideal vocational service should have several characteristics, including that the service should (1) provide an experience that is effective for the client, and (2) provide the client with the full range of vocational options. The question exists whether interest inventories in general accomplish for women the broadening and effective experiences suggested by Prediger and Holland. Many critics, among them Angrist (1972), Harmon (1973), Huth (1973), Johnson (1970), Schlossberg and Goodman (1972a) and Tittle (1973), believe that interest inventories, in their present form and usage, do not provide such experiences for women.

Research and documents relevant to the issues of sexual bias in the use of interest inventories will be reviewed in the following pages. The specific focus of the review will be factors that affect the client's view of the career exploration process that employs interest inventories. These biasing factors are found in the administration of interest inventories, in manuals and instructions, in the interpretation of inventory results through published materials, and by the counselor's perception of results. Recommendations will be presented which have relevance for the entire system of career exploration since the measurement and interpretation of interest patterns comprises a significant portion of the career exploration process (Munley, Fretz & Mills, 1971; Whitney, 1969).

The Administration of Interest Inventories

INTEREST INVENTORY MANUALS

Starting from the earliest phase of administering an interest inventory, one can reasonably assume that the test administrator becomes familiar with the instrument through the appropriate manual. Manuals typically provide a general description of the instrument, guidelines for usage, and psychometric data relevant to scale construction and validation. Presumably the test administrator consults the manual for guidelines to administer the inventory in standardized form and to interpret results to test-takers.

Two of the major interest inventories are being revised currently. Comprehensive revision of the Strong Vocational Interest Blank (SVIB) will include modifications in the inventory's manual and profile, as well as the change to one form for both sexes. The revised version of the SVIB, to be referred to as the Strong Campbell Interest Inventory (SCII), will appear in 1974. Also in revision is the interpretive leaflet of the Kuder Occupational Interest Survey (KOIS) form DD, and the interpretive section in the Kuder General Interest Survey (Form E) manual. Since the current SVIB manual (1966) and the KOIS Interpretive Leaflet (1970) are likely to be in use for some time, an examination of their content is appropriate. Appearance of the scheduled revisions, however, will represent a significant effort toward needed improvement.

The Strong Vocational Interest Blanks

Regarding the Strong Vocational Interest Blank, Schlossberg and Goodman (1972a) believe that the current manual and handbook offer guidelines which could be harmful to women clients. They referred specifically to a passage in the Manual:

Many young women do not appear to have strong occupational interests, and they may score high only in certain 'premarital' occupations: elementary school teacher, office worker, stenographer, secretary. Such a finding is disappointing to many college women...In such cases, the selection of an area of training or an occupation should probably be based on practical considerations -- fields that can be pursued part-time, are easily resumed after periods of non-employment, and are readily available in different locales (Campbell, 1966, p. 13).

Schlossberg and Goodman also referred to a section from the Handbook:

There is nothing in these data to suggest that the relationship between women's interests and occupational characteristics is any different from that found among men. Yet, occupational planning for young women will necessarily

be different from that done by young men because of their different roles. How to integrate these matters of interests into the realities of a young wife and mother's life is not well understood, but, as the strategies of planning must be supplemented somehow, these scales should provide some systematic data to help direct the feminine decision (Campbell, 1971, pp. 191,193).

Although Schlossberg and Goodman did not specify the way in which the passages promote deleterious effects for women, it seems clear from the content that options for women are considered to be limited, and that the status quo regarding women's traditional roles is acceptable.

For those unfamiliar with the SVIB, the manual provides several case studies to reflect different profiles and counseling situations. Four of the five cases are men; the career areas they are considering are architecture, political science, and technology. The woman, initially interested in nursing, changed to the field of merchandising. In the assessment process it was noted that "her social poise and tasteful grooming were definite assets (p. 17)." The section on case studies perpetuates stereotypic attitudes toward occupational roles as well as the significance of physical appearance for women. Case studies based on sterotypic roles and attitudes are grossly inconsistent with the spirit of providing clients with a full range of vocational options. Also, since nearly half the labor force is comprised of women, more case studies of women would be appropriate.

In the 1969 supplement to the manual, the reader could easily forget that a women's form of the SVIB exists. The manual supplement is clearly more focused on the men's form than the women's form. A reader might reasonably wonder if the assessment of women's interests is considered of minor significance, based on the following observations:

(1) The opening sentence is: "Men in different jobs have different interests". If the manual supplement is truly designed to bring the 1966 Manual "up to date with information covering the 1968-69 revisions in both the men's and women's forms (Foreward)," then it would be more appropriate to state that "People in different jobs have different interests." This could be challenged as trivial, except that the opening sentence seems to reflect the focus of the entire supplement.

(2) The masculine pronoun is consistently used throughout the manual supplement. Although the research is scanty at present, there is some suggestion that use of the symbol, "man," may lead many readers to think male, and not male and female (Schneider & Hacker, 1973). Use of the masculine pronoun leads to particular confusion in the section, "The Occupational Scales." Although both the men's and women's form have Occupational Scales, the description of these scales' construction and development was discussed in terms of Men-in-General and the men's Army Officer scale. Parenthetically Campbell noted that the Women's Occupational Scales were developed analagously.

(3) Description of the Men's Nonoccupational Scales covers 1 1/2 pages; that of the Women's covers approximately two-thirds of one page. No explanation is offered as to why the Age-Related, Managerial Orientation, Occupational Level and Specialization Level scales are not part of the women's form.

(4) Regarding the Masculinity-Feminity scale, Campbell offers an explanation which can be conveyed to men who feel that a low M-F score reflects a lack of virility. There is no comparable explaration offered for women who may score low on the F-M scale, as if to say that it's all right if women mistakenly interpret that score to mean they are "masculine," but it's important to insure that men don't mistakenly interpret the score to mean they are "feminine."[2]

(5) The sole example provided to demonstrate the use of the SVIB profile is that of a high school boy in relation to scores on the Science and Mathematics scales.

In light of the above, Campbell's concluding comments seem somewhat ironic. He related use of the SVIB to "understanding the person as a unique individual. Clients and applicants are real people...(p. 23)." The reading of the manual supplement suggests, instead, SVIB-users and takers are males, or, that only the male test-users and takers are worth discussing. If that is not an accurate representation of the "spirit" of the manual supplement, then corrective measures must be taken in order to correct misperceptions by readership. For example, case studies of boys and girls, men and women, with nonstereotypic roles and attitudes might stimulate the reader to think of careers with a more open mind. A significant change would be discontinuation of the generic term "man" and the masculine pronoun and substituting "people," "persons," etc. to refer to individuals in general. The ramifications of the present use of language in written matter have been discussed by Schneider and Hacker (1973) and others who have additionally provided writing guidelines to counter misrepresentations of women in literature (American Psychological Association Task Force on Issues of Sexual Bias in Graduate Education, 1973; Scott, Foresman & Company, undated). In view of the forthcoming revision of the SVIB and its noteworthy effort to provide an improved unisex inventory, it is highly desirable that the companion manual reflect the importance of wide options and nonbiased indices of career suitability for both sexes.

The Kuder Occupational Interest Survey

The Kuder Occupational Interest Survey (KOIS) is another interest inventory popularly used by counselors. An examination of its manual (Kuder, 1971)

reveals that, like the SVIB manual, the masculine pronoun is employed throughout so that consistently counselors are men and persons using the inventory appear to be boys and men. What is the most striking, perhaps, is the elimination of women's occupational and college-major scales from the men's profile (p. 10), in contrast to the women's profile which has rankings from both men's and women's occupational scales and college-major scales. Kuder noted that "a study of scores for women on scales developed on male subjects indicates that a number of these scales can be useful in the guidance of women...Scores reported for women include scores on 28 scales developed on male subjects (pp. 1 and 2)." Why is the converse not true, that is, scores for men, developed on women's scales, might be useful in the guidance of men? It may be that the former is empirically validated while the latter is not. In that case, acknowledgement could be made that men might appropriately consider "female" careers although the usefulness of the KOIS women's scales for that purpose has not yet been empirically tested. Perhaps the difference in the reporting of scores is not one of empirical testing at all, but rather, based on the "given" that a man can enter any field he chooses. This seems like a plausible explanation since male normed scales were selected for reporting on the women's profile if they represented "fields in which there are opportunities for women (p. 25)." The implication drawn from the current manual is a regretable acceptance of the status quo, with a message to the reader that "what is, will be": where women have career opportunities today is where they are likely to have career opportunities tomorrow. Fortunately, however, in the forthcoming revision of the KOIS scores will be reported to both sexes on all scales.

Self-Directed Search

Although Holland defined the Self-Directed Search (SDS) as a "vocational counseling tool (p. 3," references throughout the manual suggest that he

considers it to be appropriately included among interest inventories. As with the SVIB and KOIS manuals, the SDS manual (Holland, 1972) seems primarily focused on male test-users and takers because of the use of the masculine pronouns to refer to counselors, to students, and to persons in general. In the one instance where a woman is specifically identified, she is associated with a feminine interest area: "This girl wanted to be a musician (p. 8)."

A section of the manual, "Effects and Biases," attempts to justify the bias of the SDS with the observation that "the SDS is equally biased for and against women and for and against men. Men tend to get R, I, and E codes most frequently...At the same time, there is a tendency for the items in the R,I,E scales to discriminate more efficiently for men while the A,S,C items tend to discriminate more efficiently for women (p. 18)." The justification seems to be based on the assumption that two wrongs make a right; it tends to discount the claim that "the SDS fosters the interests of women and other targets of discrimination (p. 18)"; and it implies an acceptance of the status quo.

The Minnesota Vocational Interest Inventory

According to Clark and Campbell (1965) the Minnesota Vocational Interest Inventory (MVII) was prepared to "provide systematic information on the interest patterns of men in nonprofessional occupations (p. 7)." Scores from the MVII indicate similarity between the test-takers' interests and those of men in nonprofessional occupations at the skilled and semiskilled levels. Since there is no mention whatsoever of women, or use of the MVII with women, it seems clear from the manual that the MVII is intended to be administered to boys and men only. By implication, then, the array of occupations included

on this inventory are not to be seriously considered by women, for example, printer, carpenter, plumber, electrician, etc. Even if a counselor should choose to use the MVII with girls and women, the manual provides no guidelines regarding the interpretation of women's scores based on male norm groups.

Summary

From among the several interest inventories available to counselors, the manuals of four instruments were closely examined. Since counselors must necessarily refer to manuals to obtain norming information and guidelines for interpretation of scores, the manuals represent an influence in the career exploration process. The manuals, in varying degrees, contain both explicit suggestions and subtle implications which, if followed by the counselor, could have deleterious effects on women clientele. Recommended changes in the manuals include (a) a writing style that does not bias in favor of the masculine, such as that elucidated in guidelines published by Scott, Foresman and Company (undated) or the APA Task Force on Issues of Sexual Bias in Graduate Education (1973); (b) the use of case studies which equally represent men and women, and which portray men and women in nonstereotypic roles; (c) a definitive statement that attests to the right of all clients to be exposed to the full range of career options, thereby challenging the status quo; and (4) in cases where an inventory limits the options available to clients, this shortcoming should be acknowledged and suggestions made to circumvent the limitation.

INTEREST INVENTORY INSTRUCTIONS

Except for the SVIB which at present has separate forms for men and women (the revised SVIB will have one form for both sexes), the interest inventories present the same test booklet and answer sheet to men and women. The instructions, therefore, are the same for all who use the inventories.

As part of completing the SDS, students are requested to list their occupational daydreams; later, they are instructed to compare codes of the occupational daydreams with the summary codes of the SDS. The two sets of codes are expected to be similar, and if not, the student is encouraged to discuss the differences with a counselor. The assumption seems to be that the summary code is the norm which the daydream code should match. It is feasible that a man or woman with nonstereotyped occupational daydreams may have discrepant codes. Since the manual provides no guidelines for the counselor who must deal with discrepant codes, and since men tend to get R (realistic), I (investigative), and E (enterprising) codes most frequently while women most frequently get A (artistic), S (social), and C (conventional) codes (Holland, 1972), it is possible that the counselor may assume that the summary code is the more accurate code, and thus encourage exploration of the stereotyped occupations. A clarifying statement in the SDS booklet for the students, as well as a section in the manual for the counselor, seem necessary to avoid possible errors in interpretation.

From a review of the studies using the SVIB-W over the past ten years, Huth (1973) concluded that it's not likely to be of use in most counseling situations with women because it is unable to differentiate the interests of most women, i.e. homemakers and nonprofessionals. That conclusion was originally drawn by Super and Crites (1962), and since their observation various

attempts have been tried to broaden the array of career options produced by SVIB scores, most notably by changing the test-taking instructions and administering both the men's and women's form to an individual.

An early study involving the manipulation of test instructions was that of McCarthy and McCall (1962). The subjects, 20 nuns in elementary teaching and 20 candidates for the sisterhood who were also interested in teaching, first took the SVIB-W under standard instructions. One hour later they retook the inventory under instructions to pretend they were "hard-boiled males." Results showed a reversal in interests, with a rejection of the elementary teaching role for the professions of medicine and law. Somewhat similarly, Sparks (1967) administered the SVIB-W to 44 high school girls with standard instructions and then with role playing instructions: "Pretend you are boys... you have the same freedom to plan a career as a boy." Results showed a significant decrement on the elementary school teacher scale and substantial increments on the lawyer and engineer scales.

Most recently Farmer and Bohn (1970) administered the SVIB-W to 25 married and 25 single women under two conditions: first with standard instructions, and then with instructions intended to reduce the home-career conflict: 'I want you to pretend that men have come of age, and that (1) men like intelligent women, (2) men and women are promoted equally in business and in professions, and (3) raising a family is very possible for a career woman. Results indicated that, following the conflict-reducing instructions, scores of Career scales significantly increased (author, artist, psychologist, lawyer, physician and life insurance saleswoman) and Homemaker scales significantly decreased (buyer, business education teacher, secretary, office worker, elementary school teacher, housewife, home economics teacher and dietician). Farmer and Bohn concluded that for both married and single women career interests would be raised

if the home-career conflict were reduced. Their findings and those of earlier studies (McCarthy & McCall, 1962; Sparks, 1967) suggest that inventory patterns will change if attitudinal response sets are changed.

In a later commentary Farmer (1971) suggested that the answer to reducing the home-career conflict lies in the combination of home and career, rather than in the exclusion of one for the other. Relatedly, Karmon (1973) observed, from a study designed to explore the psychological and sociological characteristics of college women in both stereotypic masculine occupations and stereotypic feminine occupations, that "women perceive a narrow range of career possibilities because they are fearful of venturing into a man's world, frequently doubting their capacity to fill masculine typed positions (p. 12)." If counselors accept that a basic conflict does in fact exist, then they can help women re-examine old myths regarding women and the world of work, sort values, arrange priorities, consider alternatives, make decisions, and implement a choice (Schlossberg, 1972). Responding to Huth's (1973) comments about the career versus homemaker comparison, Campbell (1973) dismissed the distinction as one that is not useful in working with research data. That may be true, but from the counselor's viewpoint, research that highlights a dimension of career conflict (such as, Farmer & Bohn, 1970; Karmon, 1973; McCarthy & McCall, 1962; Sparks, 1967) could stimulate explorations in the career counseling that are very effective and expansive for the woman client.

The second suggestion to maximize the number of interest areas a woman can consider from SVIB scores is to administer both the men's and the women's forms (Cook, 1971; Laime & Zytowski, 1963; Munley, Fretz & Mills, 1973; Schlossberg & Goodman, 1972a; Stanfiel, 1970). The observations of Schlossberg and Goodman (1972a), after administering both forms to 28 men and women, were instrumental

in their presentation of a resolution to the American Personnel and Guidance Association to request revision of the SVIB in order to reduce discrimination. In their pilot study they found that

> ...nine women scored high on the occupation physician on the men's form, and only four on the women's form. Had the women, as is usual, taken only the women's form, five of them would not have had the opportunity to consider medicine as a career through the use of the SVIB. In this same pilot study, nine women scored high on the occupation psychiatrist and ten on the occupation of advertising, neither of which is available on the women's form. Of the ten men taking the women's form, seven scored high on the occupation guidance counselor, six on recreation leader, and five on speech pathologist, none of which are available on the men's form (p. 27).

In a more rigorously designed study, Munley, Fretz and Mills (1973) reached conclusions similar to Schlossberg and Goodman (1972a) namely, administering the men's form to women in addition to the women's form has some advantages. They administered men's and women's forms of the SVIB to 90 undergraduate women. Results supported the findings of earlier studies (Laime & Zytowski, 1963; Stanfiel, 1970). Significantly higher means were obtained on the men's blank scales for 13 of the 21 scales common to both men's and women's blanks, as well as a [illegible] ver fi[illegible] B+ and A [illegible]ings on scales unique to the men's form. The authors concluded that if a counselor uses only the women's form, occupational areas in which the client's interests are similar to those of men may be overlooked. Also, a woman client may mistakenly believe that she has interests dissimilar to people in a given occupation when, in fact, she lacks interests in common with the female norm for that occupation. Munley et al. (1973) recommended the "administration of both forms of the SVIB to college women requesting vocational counseling. Only if such a practice is adopted will college female clients be assured a complete picture of their interests (p. 289)."

The recommendation to use both forms of the SVIB does not seem either feasible or economical, both in terms of time and expense. Furthermore, results and implications of a study by Johansson and Harmon (1972) suggest that, if followed, such a recommendation could lead to erroneous interpretations. Since the development of the SVIB did not control for sexually stereotypic differences, a possible result from taking the form for the opposite sex may be depressed scores on a given scale because the test-taker rejected the sexually stereotypic items. The authors concluded that thereby the obtained scores "are largely uninterpretable. If they are used, they should be interpreted with sexual stereotypes, and their potential effect on scores, in mind (p. 409)." To avoid sexual bias in the SVIB the authors recommended the eventual development of one form of the SVIB that controls for sex differences; in the meantime they endorsed development of occupation scales, based on a common item pool, with both male and female norm groups for each occupation. The conclusion, that a single interest inventory for men and women would be beneficial, was also reached by Johnson (1970) after comprehensively evaluating the effectiveness of interest inventories with female clients.

The issue of whether to administer both male and female forms of the SVIB will soon be irrelevant, since the Strong-Campbell Interest Inventory (SCII), or the unisex Strong as it also has been labeled, is scheduled to become available in 1974. The larger question is whether male normed scales (for example, those of the MVII and selected scales of the KOIS-DD) can be applied to women and vice versa. The issue is mainly a psychometric concern, but it does have some relevance within the counseling process, particularly in regard to score interpretation.

Summary

A primary role of interest inventories should be to generate career options and present clients with a complete picture of their vocational interests. The question exists whether interest inventories effectively perform that role with women clients. In order to maximize options for women, researchers have experimented with changing test directions, particularly to reduce career conflicts. In general, this procedure resulted in a raised level of vocational interests for women, that is, from low-status and low-salary "feminine" occupations to traditional "masculine" occupations. Others have recommended the use of the male form of the SVIB with women clients, based on findings that this procedure yields an increase of high scores. Because of sexually stereotyped items, however, the appropriateness of applying sex-based norms to the opposite sex has been challenged. Although the development of the unisex Strong will end the debate regarding use of the male SVIB with women, the larger question remains whether sex-based norms should be used with the opposite sex, and if so, how are those scores to be interpreted?

The Interpretation of Results

The results of interest inventories are conveyed to clients in various settings. These settings include university and high school counseling centers as well as personal and employment counseling in industry and government. Since counselors are likely to have varying levels of expertise in measurement, most interest inventory manuals attempt to provide guidelines to assist counselors in translating scores into meaningful personal information for the client. These guidelines, at best, are quite broad.

In no instance does an interest inventory adequately deal with the complexities of sex role stereotyping relevant to the world of work, nor with the relevance of these issues for the counselor involved with career exploration. On the contrary, the examination of manuals representing four popular interest inventories indicates that (1) test-users and test-takers are generically "male," (2) examples drawn from case studies reflect a world of work wherein women have certain traditional roles and men have separate, distince roles, (3) by implication, career exploration should be consistent with "the world as it is," and (4) the potential for any person to consider any career is not acknowledged, let alone encouraged.

In addition to manuals, guidelines for interpretation are contained in other materials, such as the KOIS-Form DD interpretive leaflet. As noted earlier, this interpretive leaflet is in revision. Referring to the leaflet currently in use Tittle (1973) noted that:

> The interpretive materials can be examined from a woman's viewpo.... The interpretive leaflet tells her, 'your interest pattern should be one of the major considerations in making important educational and vocational decisions...' The next paragraph makes the distinction that there are Occupational Scales, Women; College Major Scales, Women; Occupational Scales, Men; College Major Scales, Men. The clear and ever present distinction for women is reinforced: 'In addition to scores under the headings marked Women, women will have scores under the heading marked Men in selected occupations and college majors where men predominate but opportunities for women are increasing (p. 68).'

The "clear and ever present distinction for women" observed by Tittle in the interpretive leaflet is also present, as previously mentioned, in the KOIS manual.

Similarly, the interpretive leaflet's example of "Maxine" reinforces the status quo in society and her exclusion from professions with power and prestige (Tittle, 1973). In the example Maxine has high scores on the men's occupational scales of optometrist, pediatrician, physician, psychiatrist, dentist and pharmacist. Since college majors in pharmacy, dentistry, pre-med, etc. are not reported for women, Maxine could not show an interest in those academic areas. From the women's occupational scales her scores suggest a range of traditionally "feminine" careers for her consideration: dietitian, nurse, dental assistant and physical therapist. The example of "Kitty Wiley" presented in the manual (p. 9) is similar in terms of the stereotypic assumptions. Although Kitty has high rankings in the men's occupational scales on pediatrician, photographer, optometrist, physician and psychiatrist, the corresponding college major scales are not reported for women, and therefore, not specifically offered for her consideration. As with Maxine, the women's occupational scales and college major scales present Kitty with options typically "feminine," namely, physical therapist, nurse, occupational therapist, x-ray technician, and dental assistant.

In a discussion of this type, two points need to be made very explicit and clear. First, the fact that the point is repeatedly made that women are routinely portrayed or are guided into "feminine" occupations, and that this is not desirable, has nothing to do with the respectability of those occupations. The concern lies with the way women characteristically are selected in or selected out of occupations. Persons of both sexes have the right to

choose from among the full spectrum of career options. Attitudes, pressures and well-intended advice based on stereotypes of sex roles too often cloud the choice process, so that a free choice is precluded. Therein lies the issue.

The second point of clarification is that sexism, or sexual bias, is the cumulative effect of many small scale, subtle influences and expectations. Thus, to some individuals many of the examples cited may seem so subtle that they are viewed as harmless (for example, statements from the manuals or interpretive materials). As discrete instances, they may be harmless; taken in aggregate, they can be oppressive. The point was conceptualized well by Schneider and Hacker (1973):

> People selectively define and perceive their worlds. Different sets of symbols represent different definitions, the variation depending in large part on the identity and location of those who create and use these symbols. Persons with sufficient power can often impose their definitions of reality on those who have less power; men have more prestige and power than women on almost every dimension of achievement and performance highly valued in the society. Just as racism is in part created, reflected and reinforced by symbols used by those who share this definition of reality, so sexism is created, reflected and reinforced (p. 13).

In addition to manuals and interpretive materials, the design and format of profiles may convey a stereotypic orientation to careers. Undoubtedly, the "old" SVIB with its seperate test booklets and profiles for men and women, symbolized an orientation toward sex-appropriate careers. The forthcoming revision, the unisex Strong, will constitute an improvement in this area. Although it is probable that the difficult and complex problems of norming will not be solved, the unisex Strong does herald positive action. A single booklet and a single

profile will be used; both men and women will be scored on all scales. Occupations on the new SCII will comprise a pooling of scales from both of the older forms; some scales, however, were originally present only on one of the older forms and not the other. Unfortunately then, as noted by Tittle (1973), several of the occupations on the profile will have a designated "m" for male, but no "f" for female: "...it will still be apparent to women that there are some occupations which are to be viewed as male, even though women will receive a score for those occupations (p. 65)." It is via such subtleties that the attitude of sex-appropriate careers is perpetuated. Clarifying remarks in the SCII manual possibly could correct any misleading impressions derived from the "m" and "f" identification of criterion groups.

The development of attitudes that link certain occupations with one sex or the other begins early in the socialization process. Brady and Brown (1973) examined sex differences of eight and ten year olds on selected vocational behavior variables. The sample consisted of 570 children representing five socio-economic classes. Subjects were asked to respond to Galler's Occupational Choice Essay Form which elicited a job choice, the reasons for the choice, and behaviors associated with it. Results indicated that boys were significantly higher than girls on a number of varied choices, at ages eight and ten; that 62% of eight year old girls and 56% of ten year old girls chose teacher, nurse or housewife as an occupation. The authors concluded that girls have occupationally limited themselves by eight years of age, and that eight and ten year old girls' occupational aspirations are concentrated on nurturant and passive sex-typed career roles.

Limited occupational options for women were similarly noted in Schlossberg's and Goodman's (1972b) study designed to discover sex stereotyping of occupations by kindergarteners and sixth graders. Results indicated that both boys and girls consider women's occupational opportunities to be more limited than

men's; for example, the children indicated that fixing cars or designing buildings was not something a woman could do, whereas she could work as a nurse, waitress or librarian.

Meyer (1970) also questioned whether occupations are sex-linked. Her sample consisted of 132 boys and girls in grades three, seven and eleven. Results indicated that both boys and girls have strong stereotyped ways of behaving toward traditionally sex-linked occupations.

Iglitzin (1972) described two studies examining sex stereotyping with fifth graders. The girls did have career aspirations, albeit stereotyped but when asked to describe a typical day in their lives as an adult, details of family life rather than career activities were emphasized.

Earlier research of Nelson (1963) indicated that the formation of occupational attitudes begins long before the ninth grade unit on careers. This finding was clearly confirmed by later studies (Brady & Brown, 1973; Iglitzin, 1972; Meyer, 1970; Schlossberg & Goodman, 1972b). Nelson observed that younger children's occupational fantasies arise from the questions asked of them, and that damaging occupational concepts may become internalized because little effort is made to help children develop an early and objective understanding of the world of work. The obvious implication is that such efforts must be made. Ten years have elapsed since the author's observations, and unfortunately, indications are that the objective understanding of the world of work Nelson called for still does not exist.

Adolescent vocational preferences were examined by Olive (1972). The females in the sample chose significantly higher social class status occupations than the comparable group of males. The females did not, however, aspire to

the most prestigious positions, and though comparable in intelligence as a group to the male group, the females did not perceive themselves, even in fantasy choices, as occupying top echelon positions of intellectual power and prestige.

The studies just cited, pertaining to early attitudinal development of sex-appropriate career patterns, indicate the pervasive and imbedded quality of sex role stereotyping. If manuals and interpretive materials are to counter those biases and instead convey that occupations can be for either sex, then that message must be blatant and clear. It will not suffice, for example, if interest inventory materials and other forms of career information simply omit stereotypic content; such materials must also convey a commitment to unbiased career decision-making.

Changing written material can be effected more quickly and economically than changing an individual's whole range of pre-vocational experiences, or by constructing new inventories; therefore, a careful scrutiny of inventory manuals and interpretive materials utilized by counselors and clients should be a logical first step. Also, based on the premise that these materials are biased against women, then adherence to the American Psychological Association's Standards of Educational and Psychological Tests and Manuals dictates changes. Principle B1 states: "The test, the manual, record forms, and other accompanying material should assist users to make correct interpretations of the test results (p. 9)." Even more appropriate is a specific principle (B1.5) subsumed under the general standard, that states: "The manual should draw attention to, and warn against, any serious error of interpretation that is known to be frequent (p. 10)."

In summary, the following suggestions are offered to minimize errors and misrepresentations in the interpretation of interest inventory results:

(1) Interest inventory manuals

a. should specifically address the problems of occupational stereotyping, and indicate the relevancy of the issue for the counselor engaged in career counseling;

b. should acknowledge that, given comparable qualifications, all jobs are potentially available for persons of either sex;

c. should clearly convey the intent of the test-developers to generate all possible options for men and women;

d. should dispel myths about women and the world of work that are based on sex-role stereotypes of careers and attitudes by describing the myths and countering them with the realities;

e. should use a style of writing that does not contain a masculine bias, that is, does not imply that test-users and takers are all males;

f. should indicate in what ways the inventory results may limit options because of stereotyping effects, and then provide solutions to circumvent those limitations;

g. should include a summary statement of the Testing Guidelines incorporated in Title IX of the 1972 Education Amendments of the Higher Education Act, with an accompanying explanation of how the test-publishers are compliant with its directives.

(2) Interpretive material

a. should provide case studies that are representative of men and women, and portray them in a variety of jobs that are beyond traditional ex-

pectations in terms of type, level, etc.

b. should provide guidelines for the interpretation of scores based on opposite-sex criterion groups;

c. should provide the counselor with a discussion of factors which may affect a client's scores in a limiting way, e.g. home-career conflict, masculine-feminine stereotype of intellectual behavior, effects of early experiences on the development of interests, etc.

(3) Profiles

a. should convey that all occupations and college majors are possible options for men and women;

b. should use the same format for both sexes, thus conveying that both men and women can consider the same career options.

By following guidelines as those suggested above, use of interest inventories can be expected to expand career options for men and women, or at least, minimize ineffective service based on stereotyping. Hopefully, the effect of generating and broadening options will generalize to the total career counseling process.

In the spirit of expanding vocational options for clients engaged in career decision-making, it may be that inventoried interests more frequently should be linked with expressed interests. There is some evidence that expressed interests should be a greater part of the career counseling process than they typically are. This is a particularly intriguing notion, in view of the norming difficulties inherent with inventoried interests. Nelson (1971) concluded from his findings that for a thorough analysis of a client's occupa-

tional interests, the counselor should use both expressed and inventoried interests. Whitney (1969) also suggested using expressed choices, noting from his review of prediction studies based on expressed vocational choices, that "The evidence seems to indicate some value in studying expressed choice further, especially in comparison with other, more frequentely used predictors (p. 284)."

Summary

One of the most crucial aspects to using interest inventories is the interpretation of results. For the person who is not informed about the complexities of stereotyping, particularly in regard to the development of vocational goals, interest inventories can contribute to the perpetuation of conventional career patterns for men and women. Interpretive materials were examined to determine whether they support or counter tradition-bound career choices. Related research was reviewed pertaining to attitudinal development of sex-appropriate career patterns. Specific guidelines were suggested for inventory manuals and interpretive materials to minimize deleterious effects resulting from stereotyped expectations and attitudes.

Counselor and Client Perceptions of Interest Inventory Results

Except for the SDS which can be self-scored and self-interpreted, results of the other interest inventories are interpreted by a counselor to a client. Assistance of computerized systems, for vocational guidance in general and interpretation of inventory scores in particular, is relatively new, so that the comparative effectiveness of mechanical and traditional counseling techniques is not yet known. As computerized systems are developed, they should be examined for stereotyping and restriction of choices for women (Tittle, 1973). For the most part, however, interest inventory results are conveyed and interpreted to clients in the traditional counseling method of dyadic or small group interactions.

Counselor-Client Interaction

It is fairly recent that research is being designed to examine whether, and if so, in what manner, counselors are interacting with women clientele in a biased, restricting manner. Nonempirical observations, however, have provoked sporadic cautions to counselors throughout the past decade. Heist (1962), for example, noted that although women in general scored the same or better than men on measures of abstract thinking and on SVIB-M intellectual categories, women characteristically looked ahead to marriage with education or employment as only temporary involvements. In view of that, Heist conjectured that stereotypes of the female role mitigate against strong academic, vocational and professional commitments, and that both the home and the school reinforce that stereotype. Ten years later Karmon (1973) similarly rebuked education for having little or no effect on changing women's awareness or interests beyond the stereotypic career roles.

Gurin, Nachmann and Segal (1963) observed a high incidence of abrupt terminations by college women who sought vocational counseling. This led the authors to consider the technical problems in career counseling with women. They hypothesized that women clients, who must confront the cultural stereotypes of the feminine, nonintellectual woman versus the masculine, intellectual woman, may view a commitment to vocational counseling as a commitment to making a choice of sexual identity. The authors concluded that counselors must confront their own stereotypes of "feminine" and "masculine" vis-a-vis intellectual behaviors, lest they alienate clients. Relatedly, Farmer (1971), from her concern that women be encouraged to develop academic potential, identified the need for counselors to create a clear sanction for women to combine home and career.

Cognizant of the home-career conflict for many young women, Rossi (1965) suggested that more women scientists would be produced by (1) giving more stress to future family roles of boys and occupational roles of women, (2) lightening domestic concerns of employed women by applying technology to problems of home maintenance, (3) encouraging commentaries from men who find marriage to a professional woman satisfying, and (4) stopping the encouragement of women toward restricted occupational goals under the pretext of being realistic. The extent and manner in which counselors use "reality" to dissuade women from "masculine" occupations is particularly clear in a study by Pietrofessa and Schlossberg (1971).

To test the hypothesis that counselors were biased against women entering deviate occupation, Pietrofessa and Schlossberg (1971) arranged individual interviews between 29 counselor trainees and a female coached client who expressed indecision between entering engineering and/or the

field of education. Tape recordings of the interviews were analyzed for positive bias (support) and negative bias (disapproval) toward entering the "masculine" field. Results indicated that both male and female counselor trainees displayed negative bias. Of the total bias statements, 81.3% and 18.7% were biased against and for women respectively. Following are representative negative bias statements of the counselor trainees: (1) The status of women is higher in the field of teaching, (2) You would only be gone from home during school hours if you taught school, (3) Engineering would take five years and elementary education would be four years...These are things you might want to consider, (4) There might be a holding of you back because you're a woman, (5) Engineering is very, you know, technical and very, I could use the term "unpeopled," and (6) You normally think of this as a man's field. The authors suggested that such statements influence women clients toward tradition-bound, stereotyped career options.

The question exists whether similar negative bias would have been displayed against a male client, with comparable qualification, confronting the same indecisiveness between engineering and education. An attempt to answer this is contained in the investigation of Smith (1973) who, unlike other researchers (Broverman, et al., 1970; Friedersdorf, 1969; Hawley, 1971, 1972; Pietrofessa and Schlossberg, 1971; Thomas and Stewart, 1971), included male clientele to whom counselor-subjects responded. Her results suggest that counselor recommendations of vocational choices for clients are not influenced by sex of the client. By using case study materials with sex of the hypothetical client systematically varied, the author was able to control for effect of client sex, a significant control missing in other research. Smith's findings indicate that counselors behave similarly to male and female clients.

The findings of Thomas and Stewart (1971) indicate that a female client who is ambivalent regarding a deviate career goal may find counseling more hindering than helpful. The purpose of the study was to determine whether secondary school counselors respond more positively to female clients with

traditional rather than nontraditional career goals. Five stimulus interviews with high school girls were presented on audiotape to 64 practicing counselors. Analysis of counselor responses indicated that "(1) female counselors gave higher Acceptance scores to both deviate and conforming clients than did male counselors, (2) counselors, regardless of sex, rated conforming goals more appropriate than deviate goals, (3) counselors, regardless of sex, rated female clients with deviate career goals to be in more need of counseling than those with conforming goals (p. 352)." The same question applied to the Pietrofessa and Schlossberg (1971) findings is appropriate here, namely, would similar results occur with male clients of comparable qualities who expressed ambivalence about pursuing deviate career goals? Clearly, additional research is needed to more accurately assess the differential responses of counselors to men and women with nontraditional vocational concerns.

Friedersdorf (1969) also examined the attitudes of secondary school counselors toward career plans of female clients. Male and female practicing counselors participated in the study by completing the SVIB-W and then role playing the part of either a college-bound or non-college-bound high school girl. Some of the counselor attitudes apparent from the role playing were (1) male counselors associated feminine occupations at the semi-skilled level with college bound girls, whereas female counselors associated occupations requiring a college education with college-bound girls, (2) male counselors tended to think of women in traditional roles characterized by feminine personality traits, whereas female counselors tended to expand career options beyond traditional work roles, and (3) male counselors perceived college-bound girls as having positive attitudes toward traditionally feminine occupations, and did not consider traditionally masculine

careers as appropriate for college-bound girls.

The striking feature of both Friedersdorf's findings and those of Thomas and Stewart (1971) is that counselors in general tend to perceive traditional career goals as more appropriate for women clients than the non-traditional "masculine" careers. The consequence of counselors holding values regarding the appropriateness of occupations based on sex is an effect on the counseling process and its outcomes, namely, perpetuation of conventional patterns of career choices.

An indication that counselors, at least female counselors, may be reassessing the value of sex-appropriate occupations is apparent from a recent study by Hawley (1972). Based on the finding of earlier research that a significant relationship exists between the careers women choose and their beliefs regarding men's view of the feminine ideal (Hawley, 1971), Hawley asked 136 women students to respond to a scale of 35 statements of ideal feminine attitudes and behaviors as they believe significant men in their lives view the attitudes and behaviors. The subjects represented three professional fields; teachers in training, math-science majors, and counselor trainees. It was hypothesized that students in teaching, a traditional feminine profession, would score toward the dichotomous end of the scale, that is, perceive men's view of behavior as not having a sex referent; and that counselors' scores would occupy a middle position on the dichotomous-androgynous continuum. The hypothesis was confirmed by the results, except for the counselor group whose scores were closer to the androgynous end:

> Counselors in the present study had a relatively broad view of male notions of femininity. They can help female clients become aware of a variety of life

styles and career choices, all of which can be viewed as feminine by some men. A career in homemaking can be considered as personally rewarding and as socially contributive as a career in science because the androgynous model merely expands the options, it does not imply that any choice is superior to any other (p. 313).

Since the subjects in this study were all women, an unaswered question is whether male counselors share the androgynous view that behavior is not sex-specific. The findings of other studies suggest they may not (Friedersdorf, 1969; Thomas & Stewart, 1971).

Another aspect of Hawley's research is noteworthy. Based on the hypothesis that men's views play a significant, although unrecognized, part in women's career choices (Hawley, 1971), 86 women subjects representing three subgroups, homemakers (not gainfully employed), feminine careers (traditional feminine jobs), and androgynous careers (male-dominated jobs), were asked to respond to 80 attitudinal or behavioral statements as they thought significant men in their lives would respond. Results indicated that a relationship does exist between women's career choices and their perceptions of significant men's view of the feminine ideal. For example, women in traditionally feminine occupations tended to think men view behavior in a sex-linked way, i.e. appropriately male or female. Women outside the feminine career group did not perceive men making sex the basis for the behaviors described. This finding was replicated in Hawley's (1972) later study in which student teachers, math-science majors and counselor trainees comprised the subject sample.

Findings of Hawley (1971; 1972) and Farmer and Bohn (1970) have related implications for the counselor engaged in career exploration. If a large por-

tion of women, such as homemakers and those in traditionally "feminine" occupations, are significantly influenced toward conventional choices because of a disposition to act as they believe men prefer, then a wider range of options might be considered by women if they thought men would approve. Clearly, programs for men and women designed to reduce stereotyping are necessary. To unlearn, however, that behaviors are sex-appropriate is a challenging educational endeavor, albeit a necessary effort. An unfortunate corollary is that behaviors are not only viewed as appropriate for one sex or the other but also are differentially perceived as mentally healthy or not.

Evidence that behaviors for a healthy male are not the same for healthy females was provided by Broverman, Broverman, Clarkson, Rosenkrantz and Vogel (1970). The judgments of 79 clinically-trained psychologists, psychiatrists and social workers (46 males, 33 females) confirmed their hypothesis that characteristics of healthy individuals would differ as a function of sex, and that the differences would be congruent with stereotypic sex-role differences. They obtained their data by asking clinicians about characteristics of healthy adult men, healthy adult women, and healthy adults with sex unspecified. For each or the three types, characteristics were indicated by the clinicians' response to 122 bipolar items, each pole characterized as typically masculine or feminine. Commenting on their findings, Broverman et al. (1970) note:

> In our society, men and women are systematically trained, practically from birth on, to fulfill different social roles. An adjustment notion of health, plus the existence of differential norms of male and female behavior in our society, automatically leads to a double standard of health. Thus, for a woman to be healthy, from an adjustment viewpoint, she must adjust to and accept the

behavioral norms for her sex, even though these behaviors are generally less socially desirable and considered to be less healthy for the generalized competent, mature adult (p. 6).

The findings of the studies reviewed above (Broverman, et al., 1970; Friedersdorf, 1969; Hawley, 1971, 1972; Pietrofessa & Schlossberg, 1971; Smith, 1973; Thomas & Stewart, 1971) have clear implications for the counseling process, as already indicated, and for the general domain of social action as well. Attacking the deterrents to extensive and free career choices must include affirmative action outside the counseling hour.

Importance of Interest Inventory Results

It is difficult to say how significant interest inventory results actually are, or in fact, to determine how influencial career counseling is. D'Costa (1969) described interest inventories as having a twofold value: for the student as facilitative in vocational exploration and self-understanding; for the counselor as a vehicle for understanding student needs. In a brief description of the Ohio Vocational Interest Survey (OVIS), D'Costa (1972) described the instrument as designed to facilitate vocational exploration rather than prediction and recommended that it be used in conjunction with other instruments. In one attempt to systematically look at the usefulness of interest inventories, from both the client's and the counselor's viewpoint, King and Bellezza (1969-70), compared use of the KOIS and the SVIB. Entering freshmen at a junior college were given their KOIS and SVIB profiles at seven group meetings. During the meetings an experienced counselor provided some explanation of the results and conducted short discussion periods. Results of a questionnaire administered

at the end of the meetings indicated that 55% of the students found the KOIS more helpful; 18% preferred the SVIB; 27% were undecided. The counselors found the KOIS more valuable in eliciting information from clients, but preferred the SVIB as a counselor tool. The researchers concluded that the results did not indicate a superiority of one instrument over the other, and that counselors generally found both useful. The conclusions appear to be rather tenuous, however, since only the clients' and counselors' self-reports were used to determine usefulness.

Some would agree with Smith (1973) that:

> Educational and career choices are most often determined by a person's socio-economic status, aptitudes and interests, and parental encouragement received. Thus, personalogical and cultural influences overshadow the impact of the bias expressed by a counselor in a brief encounter (p. 93).

Holland (undated) takes a similar stance. In a discussion which focuses on means to reduce systematic bias in the delivery of vocational services, Holland opined that the individual's life history, more than biases of counselors and interest inventories, orient persons toward some occupations rather than others:

> Because interest inventories simply tally the effects of one's special history and heredity, the most influential strategy would be to modify the life histories of people before they go to work rather than to revise vocational interventions. Contrary to popular opinion, counseling interventions usually have minor effects upon vocational aspirations. Major effects appear more likely if we are able to influence people at younger age levels in ways

> that are consistent with some theoretical understanding of the development of vocational aspirations (p. 8).

Holland then proceeded to suggest several channels for social action. Within that discussion he referred again to interest inventories, and stated in their defense: "In general, interest inventories seem to be less biased and more helpful than most forms of vocational assistance (p. 9)."

Understandable enough, Holland's remarks indicate a clear preference to channel the focus for change away from interest inventories and on "social action." It is unlikely that the suggestion to engage in social action would be challenged. It is, on the other hand, contestable that professionals should "modify the life histories of people before they go to work rather than to revise vocational interventions (p. 8)." Suggesting remediation to be an either-or proposition, that is, either modification of life histories or revision of vocational interventions, is not constructive. More appropriate is a mandate to do both. Additionally, of the two strategies, the one most manageable and most practical to put into immediate effect is, undoubtedly, the latter.

Enriching pre-vocational experiences are valuable and desirable. Support for such experiences is contained in the longitudinal study of the career planning of college women conducted by Almquist and Angrist (1970). The study focused on career-oriented girls who chose male-dominated occupations. The hypothesis, that broadening and enriching experiences have a positive effect on career planning, was well supported when data on the mothers' work histories, the students' own work experience and the influence of occupational role models were assessed.

Broadening pre-vocational experiences was explicitly mentioned by Holland (undated) as one of the means to increase vocational options for all persons. Among his suggested remedies are (1) action to broaden everyone's pre-vocational experiences, such as, opening all educational experiences to men and women, eliminating sex discrimination in parttime jobs sought by young men and women, and reducing the use of sex-stereotyped materials and activities in elementary schools; (2) support of professional commissions and recommending that they broaden membership to include consumers and test publishers; (3) formulation and adoption of general guidelines to alert publishers, consumers and authors of the problems as well as possible solutions; (4) research designed to evaluate how vocational interventions and their revisions affect individuals; and (5) research to study the development of vocational aspirations with a special focus on early determinants of vocational preferences.

To respond to the strategies for social action suggested by Holland, and to generally facilitate effective career exploration, calls for both awareness and commitment of counselors. Educational programs, workshops, conferences, etc. are needed. The counselor, for example, should be aware of such deterrents as the home-career conflict for women and the restricting influence of some pre-vocational experiences on inventoried interests. Another consideration is related to when an interest inventory is most effectively introduced into the counseling process. Ryan and Gaier (1967) considered the interest inventory as possibly "adding to a self-fultilling prophecy for many students who are not as yet aware of their potentials or of the multiplicity of courses

and fields available to them as individuals (p. 40)." The authors recommended that in some instances extended individual counseling is necessary before interest inventories could be very helpful.

Schlossberg and Pietrofessa (1973) assumed that sex stereotyping exists, then designed counselor workshops to change attitudes. On the basis of their training involvements they recommended for participants new cognitive understandings through lectures and reading; use of group techniques for consciousness-raising; use of audio-video taping and role playing to develop helping skills; and development and implementation of programs. They referred to counselor education hopefully: "We are educable. We can help ourselves with new perspectives. We can free ourselves from ideas which restrict our thinking and which, in turn, may restrict our clients' behavior (p.45)."

Summary

Several studies were reviewed which highlighted the need for counselors to be aware of their own stereotypes, lest they alienate clients and restrict them to a narrow range of career options. It was noted that counselors generally tend to view traditional career goals as more appropriate for women than the nontraditional "masculine" goals. Unfortunately, such values affect the counseling process and its outcomes, namely, they perpetuate stereotypic career patterns. To effect changes in the status quo several areas warrant attention: strategies for social action; development of educational experiences for counselors designed to free sex roles and options for men and women; and revision of vocational interventions.

Summary and Conclusions

Counselors are being exhorted more and more frequently to be aware of their stereotypes, particularly as these affect career and life style options for women clientele. Part of the concern stems from the observation that women are typically guided into conventional career patterns based on stereotypic attitudes and expectations rather than on values, abilities and well-developed interests. The question exists whether interest inventories contribute and if so, in what manner, to the perpetuation of tradition-bound career choices for women.

Research related to the issues of sexual bias in the use of interest inventories was reviewed, particularly from the client's view of the career exploration process. It is only recently, however, that researchers have attended to the impact of sex-based stereotyping in career counseling, much of the research is yet to be designed and implemented.

Since counselors refer to manuals and interpretive materials to obtain norming information and guidelines for score interpretation, these materials are influential in the career exploration process. They were examined and found to contain both explicit suggestions and subtle implications which, if followed by the counselor, could have deleterious effects on women clientele. Recommended changes for manuals and interpretive materials were aimed at maximizing the counselor's effective use of interest inventories on the client's behalf. The entire issue of sex role stereotyping, for example, with all its complexities and its ramifications for women and the world of work, needs to be explicitly discussed in manuals. If manuals and interpretive materials are to convey that occupations can be for either sex, then that message must be blatant, for sexual bias is both pervasive and subtle.

One criticism leveled against interest inventories is that they present a limited range of career options for women. Attempts have been made to increase the array of career choices presented to women by administering the men's form of the SVIB to women in addition to the women's form, and by changing the test-taking directions of the SVIB so that women make their responses with an altered response set.

The several studies in which test-taking instructions were modified suggest that inventory patterns will change if attitudinal response sets change, specifically, if women experience a reduction of the home versus career conflict, and if women perceive men as approving nontraditional career goals. These findings seem particularly significant when coupled with results of other research indicating that women's career choices are effected by what they think men believe is ideal female behavior.

Regarding the administration of the men's SVIB to women, researchers report an increase of high scores. Critics of this procedure have challenged the appropriateness of applying sex-based norms to the opposite sex, however, and have raised questions about the "interpretability" of results since the scales were not developed with a control for sexual stereotypes. Although the advent of the unisex Strong will cause the debate regarding use of the male SVIB with women to be irrelevant, the larger question remains of how to interpret scores derived from criterion groups of the opposite sex.

Since the results of an interest inventory are generally conveyed to the client in the traditional dyadic or small group setting, the interaction between counselor and client is significant. On the client's part, unless there have been broadening pre-vocational experiences, it is likely that the female client will consider traditional "feminine" occupations as appropriate

options. A growing area of research indicates that in early elementary school years boys and girls have developed attitudes that view occupations as appropriate for one sex or the other. Just as clients carry these early imbedded stereotypes to the career counseling sessions, so does the counselor. For example, most of the research relevant to counselor bias indicates that counselors, of both sexes, view traditionally "feminine" occupations as more appropriate for women clientele than "masculine" career goals. Whether the converse is also true, that is, would counselors exhibit the same bias toward males presenting nontraditional vocational aspirations, is not clear from the research.

Although interest inventories represent only one form of input to the total career counseling process, their usage is particularly significant since inventory results typically suggest the interest areas that are explored within the counseling sessions. Research shows that the options generated by the inventories include and exclude specific career considerations for either sex. That situation defines a sober issue. It is not a simple issue, but a complex one since other factors interact with interest inventory results, such as stereotyped attitudes of the counselor, the client, and those contained within inventory manuals and interpretive materials.

Concerned professionals have begun to focus on the issue of sexual bias in career counseling, so that the problematic aspects are becoming better conceptualized and articulated. From these discussions varied suggestions have emerged to channel engergies toward corrective interventions. Among those suggestions are: (1) social action to alter pre-vocational experiences of men and women so as to maximize the range of vocational interests and aspirations; (2) research to examine the development of interests, particularly within the neglected area of women's vocational goals; (3) workshops to provide counselors an awareness of sex roles and strategies to

counter the biases of stereotypes; (4) revision of interest measures, and (5) modification of inventory manuals and interpretive materials.

All of the recommendations are viable and promising; some are more easily operationalized than others. For example, revising several pages of a manual could be more quickly effected than developing a totally new inventory, or programming life experiences that are stereotype-free. Without discarding potential remedies, priorities must be thoughtfully set. The relative lack of difficulty to the task as well as the immediacy with which the objective could be completed, lend cogency to high priority efforts for the modificiation of manuals and related interest inventory materials.

REFERENCES

Almquist, E. M., & Angrist, S. S. Career salience and atypicality of occupational choice among college women. Journal of Marriage and the Family, 1970, 32, 242-249.

American Psychological Association. Standards for educational and psychological tests and manuals. Washington, D.C.: APA, 1966.

American Psychological Association, Task Force on Issues of Sexual Bias in Graduate Education. Report. Washington, D.C.: APA, 1973.

Angrist, S.S. Counseling college women about careers. Journal of College Student Personnel, 1972, 13, 494-498.

Birk, J.M., Cooper, J., & Tanney, M.F. Racial and sex role stereotyping in career information illustrations. Paper presented at the meeting of the American Psychological Association, Montreal, 1973.

Brady, R.P., & Brown, D.B. Woman's lib and the elementary school counselor. Elementary School Guidance and Counseling, 1973, 7, 305-308.

Broverman, I.K., Broverman, D.M., Clarkson, F.E., Rosenkrantz, P.S., & Vogel, S. R. Sex-role stereotypes and clinical judgments of mental health. Journal of Consulting and Clinical Psychology, 1970, 34, 1-7.

Campbell, D.P. Manual for the Strong Vocational Interest Blanks, revised. Stanford: Stanford University Press, 1966.

Campbell, D.P. Handbook for the Strong Vocational Interest Blanks. Stanford: Stanford University Press, 1971.

Campbell, D.P. Invited comment: Women deserve better. Personnel and Guidance Journal, 1973, 51, 545-549.

Clark, K.E., & Campbell, D.P. Minnesota Vocational Interest Inventory Manual. New York: The Psychological Corporation, 1965.

Constantinople, A. Masculinity-femininity: An exception to a famous dictum. Psychological Bulletin, 1973, 80, 389-407.

Cook, B. Roles, labels, stereotypes: A counselor's challenge. Journal of the National Association of Women Deans and Counselors, 1971, 99-105.

Crites, J.O. Vocational psychology. New York: McGraw-Hill, 1969.

D'Costa, A.G. The role of interests and interest measurement in guidance. Paper presented at the meeting of the American Personnel and Guidance Association, Las Vages, 1969.

D'Costa, A.G. OVIS--A non-predictive device. Paper presented at the meeting of the American Personnel and Guidance Association, Chicago, 1972.

Eyde, L.P. Eliminating barriers to career development of women. Personnel and Guidance Journal, 1970, 49, 24-28.

Farmer, H.S. Helping women to resolve the home-career conflict. Personnel and Guidance Journal, 1971, 49, 795-801.

Farmer, H.S., & Bohn, M.J. Home-career conflict reduction and the level of career interest in women. Journal of Counseling Psychology, 1970, 17, 228-232.

Friedersdorf, N.W. A comparative study of counselor attitudes toward the further educational and vocational plans of high school girls. Unpublished manuscript, Lafayette: Purdue University, 1969.

Gurin, M.G., Nachmann, B., Segal, S.J. The effect of the social context in the vocational counseling of college women. Journal of Counseling Psychology, 1963, 10, 28-33.

Hall, G. Changing sex roles in the labor force. Phi Delta Kappan, 1973, 45, 135-137.

Harmon, L.W. Sexual bias in interest measurement. Measurement and Evaluation in Guidance, 1973, 5, 496-501.

Hawley, P. What women think men think: Does it affect their career choice? Journal of Counseling Psychology, 1971, 18, 193-199.

✓ Hawley, P. Perceptions of male models of femininity related to career choices. Journal of Counseling Psychology, 1972, 19, 308-313.

Hedges, J.N. Counseling of girls and mature women. Employment Service Review, 1964 (Dec.)

Heist, P. A commentary on the motivation and education of college women. Journal of the National Association of Women Deans and Counselors, 1962, 25, 51-59.

Holland, J.L. Professional manual for the Self-Directed Search. Palo Alto: Consulting Psychologists Press, Inc., 1972.

Holland, J.L. Some guidelines for reducing systematic biases in the delivery of vocational services. Unpublished manuscript, The Johns Hopkins University, undated.

Huth, C.M. Measuring women's interests: How useful? Personnel and Guidance Journal, 1973, 51, 539-545.

Iglitzin, L.B. A child's view of sex roles. Today's Education, 1972, 61, 23-25.

Johansson, C.W., & Harmon, L.W. The SIVB: One form or two? Journal of Counseling Psychology, 1972, 19, 404-410.

Johnson, R.W. (Ed.) Use of interest inventories with women. Counseling Center Research Report, 3(13). University of Wisconsin, 1970.

Karmon, F.J. Women: Personal and environmental factors in career choice. Paper presented at the meeting of the American Educational Research Association, New Orleans, 1973.

King, L.A., & Bellezza, F. A comparison of two vocational interest tests used with general college students. General College Studies, 6(3). University of Minnesota, 1969-1970.

Kuder, G.F. Kuder (DD) Occupational Interest Survey general manual. Chicago: Science Research Associates, 1971.

Laime, B.F., & Zytowski, D.G. Women's scores on the M and F forms of the SVIB. Vocational Guidance Quarterly, 1963, 12, 116-118.

Magoon, T.M. Data bank, college and university counseling centers. University of Maryland, 1973.

McCarthy, M.K., & McCall, R.J. Masculinity faking on the fM scale of an interest inventory. Personnel and Guidance Journal, 1962, 41, 346.

Meyer, M.M. Patterns of perceptions and attitudes toward traditionally masculine and feminine occupations through childhood and adolescence. (Doctoral dissertation, Michigan State University) Ann Arbor, Mich.: University Microfilms, 1970. No. 70-15,084.

Munley, P.H., Fretz, B.R., & Mills, D.G. Female college students' scores on the men's and women's Strong Vocational Interest Blanks. Journal of Counseling Psychology, 1973, 20, 285-289.

Nelson, G.A. Discrepancy between expressed and inventoried vocational interests. Vocational Guidance Quarterly, 1971, 20, 21-24.

Nelson, R.C. Knowledge and interests concerning 16 occupations among elementary and secondary school students. Educational and Psychological Measurement, 1963, 23, 741-754.

Olive, H. Sex differences in adolescent vocational preferences. Vocational Guidance Quarterly, 1972, 21, 199-201.

Pietrofessa, J., & Schlossberg, N.K. Counselor bias and the feminine occupational role. In N. Glazer-Malbin & H.Y. Walker (Ed.), Women in the society and economy. Chicago: Rand McNally, 1971.

Prediger, D.J. Converting test data to counseling information. ACT-RR-44. American College Testing Program, Iowa City, 197

Prediger, D.J. Tests and developmental career guidance: The untried relationship. Measurement and Evaluation in Guidance, 1972, 5, 426-429.

Pringle, M.B. Counseling women. Paper presented at the meeting of the American Personnel and Guidance Association, Atlantic City, 1971.

Rossi, A.S. Women in science: Why so few? Science, 1965, 148, 1196-1202.

Ryan, D.W., & Gaier, E.L. Interest inventories and the developmental framework. Personnel and Guidance Journal, 1967, 46, 37-41.

Schlossberg, N.K. A framework for counseling women. Personnel and Guidance Journal, 1972, 51, 137-143.

Schlossberg, N.K., & Goodman, J. Imperative for change: Counselor use of the Strong Vocational Interest Blanks. Impact, 1972, 2, 25-29. (a)

Schlossberg, N.K., & Goodman, J. A woman's place: Children's sex stereotyping of occupations. Vocational Guidance Quarterly, 1972, 20, 266-270. (b)

Schlossberg, N.K., & Pietrofessa, J. Perspectives on counselor bias: Implications for counselor education. The Counseling Psychologist, 1973, 4, 44-54.

Schneider, J.W., & Hacker, S.L. Sex role imagery and use of the generic "man" in introductory texts: A case in the sociology of sociology. The American Sociologist, 1973, 8, 12-18.

Scott, Foresman and Company. Guidelines for improving the image of women in textbooks. Glenview, Ill.: undated.

Smith, M.L. Notes on "Perspectives on counselor bias: Implications for counselor education." The Counseling Psychologist, 1973, 4, 93.

Sparks, J. The effects of male role playing on the inventoried interests of high school girls. Unpublished master's thesis, Teachers College, Columbia University, 1967.

Stanfiel, J.D. Administration of the SVIB men's form to women counselees. Vocational Guidance Quarterly, 1970, 19, 22-27.

Super, D.E., & Crites, J.O. Appraising vocational fitness (2nd ed.) New York: Harper & Brothers, 1962.

Thomas, A.H., & Stewart, N.R. Counselor response to female clients with deviate and conforming career goals. Journal of Counseling Psychology, 1971, 18, 352-357.

Tittle, C.K. Women and educational testing: A selective review of the research literature and testing practices. New York: Office of Teacher Education, City University of New York, 1973.

U.S. Department of Labor, Employment Standards Administration, Women's Bureau. Women workers today. Washington, D.C.: U.S. Government Printing Office, Bulletin 3119, 1971.

U.S. Department of Labor, Employment Standards Administration, Women's Bureau. Careers for women in the 70's. Washington, D.C.: U.S. Government Printing Office, Bulletin 512-381(77), 1973.

Whitney, D.R. Predicting from expressed vocational choice: A review. Personnel and Guidance Journal, 1969, 48, 279-286.

FOOTNOTES

[1] The author is grateful to Ms. Jackie Cooper for her research assistance in the preparation of this manuscript.

[2] From Constantinople's (1973) review of literature pertaining to masculinity-femininity scales, the controversial nature of this construct is clear. In the revised SVIB the M-F scale will be eliminated, suggesting that measurement of M-F as a concept is undergoing change.